

UK Patent Application GB 2 153 334 A

(43) Application published 21 Aug 1985

(21) Application No 8502187

(22) Date of filing 29 Jan 1985

(30) Priority data

(31) 8402397
8426352

(32) 30 Jan 1984
18 Oct 1984

(33) GB

(51) INT CL⁴
G09F 3/00 7/00

(52) Domestic classification

BBF BX
U1S 1793 1797 1807 88F

(56) Documents cited

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(58) Field of search
BBF

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(54) Identification means for
containers

(57) A container e.g. a metal beer
keg, is provided with a plastics
identification plate 7 having
identification marking on the inner
side face or within the plate. The
plate may be optically transparent
and have a bar code adhesive strip
on its inner face or it may
incorporate magnetic material
within the plate itself. The plate
may be adhesively secured, nailed,
stapled or riveted to the container
or it may be held in place by a
frame 6.

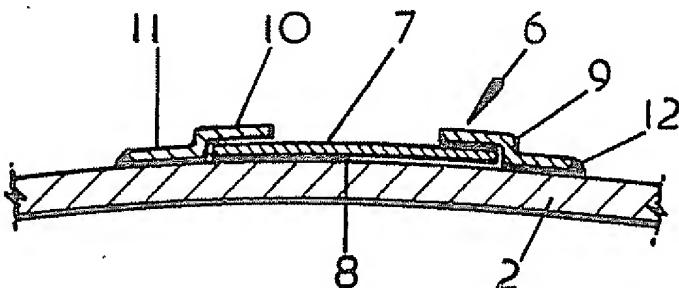


FIG. 2

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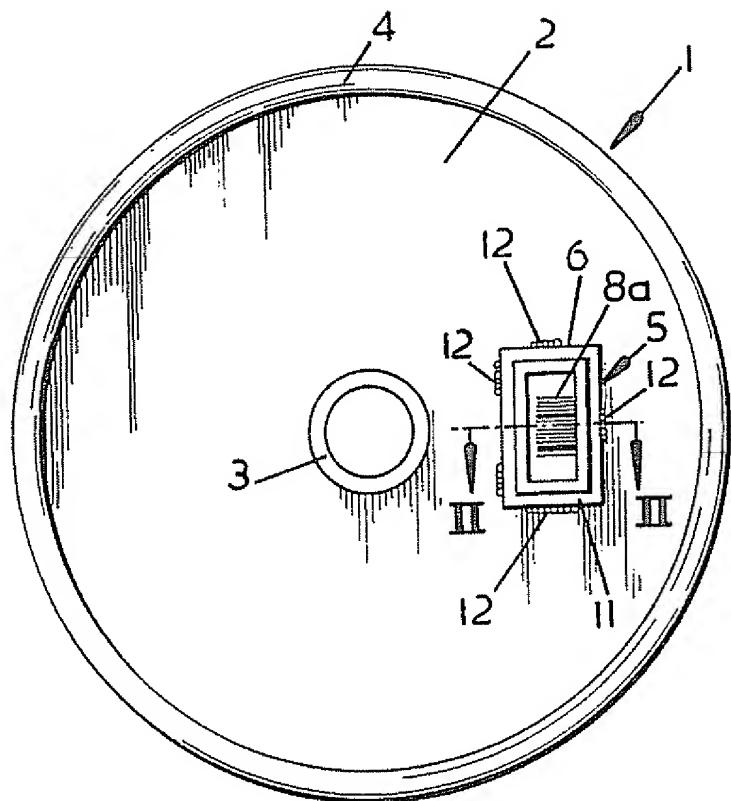


FIG. 1

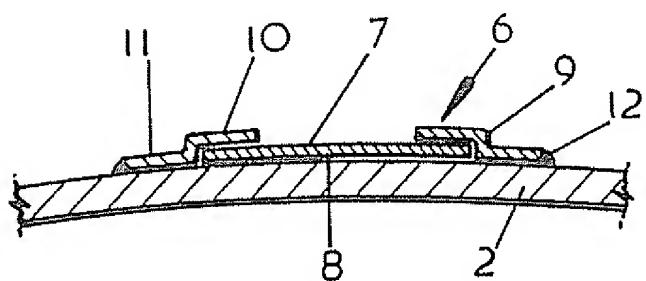


FIG. 2

SPECIFICATION

Identification means

5 This invention relates to identification means, and in particular to identification means on containers or receptacles generally. It is more especially, but by no means exclusively, concerned with identification means on metal beer kegs and casks.

10 The identification of metal beer kegs and casks, hereinafter referred to generally as "barrels", has two important aspects. The first of these is to enable a brewery to keep track of the whereabouts of the barrels of a very considerable stock thereof, and the second is to enable a stolen barrel to be identified as such. The loss of barrels, whether as a result of inadvertence or theft, is a very expensive item in brewery accounts.

15 At present beer barrels are most usually marked with an identification number stamped into the metal at one end, but this is easily defaced either accidentally or wilfully, 20 and in any case it is easily misread. It is also not suited to modern computer record techniques for which an automatically readable identification is to be preferred. To overcome the latter problems barrels have been bar coded, for automatic reading by a scanning head such as a hand-held probe, with the bar code on an adhesive strip, but such a strip is easily removed and tends to become detached during washing procedures.

25 The object of the invention is to provide means for identifying containers or receptacles suited to computerised reading methods and providing greater security.

30 According to the present invention there is provided identification means on a container or receptacle comprising a plastics identification plate with identification marking on the inner side face thereof or within the plate, and means for securing the plastics identification plate to the container or receptacle without obscuring the identification marking which can thus be read.

35 Preferably, the plastics identification plate is secured to the container or receptacle by retention means secured to the latter and overlapping at least part of the periphery of the plastics identification plate.

40 Preferably, the retention means is a frame member peripherally surrounding the plastics identification plate and overlapping opposed peripheral regions of the latter.

45 Preferably, the identification means on a metal container or receptacle comprises a pressed metal frame member with a side flange or flanges which fit closely to the container surface and by which the frame member is welded to the container, and a plastics identification plate with identification marking on the inner side face thereof or 50 within the plate, the plate being retained

within the frame member which completely encloses a peripheral region of the plate without obscuring the identification marking which can thus be read.

55 The plastics identification plate is preferably optically transparent and the identification marking preferably is or incorporates a bar coding for reading by an optical scanning head or probe.

60 However, some form of magnetic marking may be employed in which case the material need not be optically transparent. When such magnetic marking is on the inner face of the plate the latter will be magnetically transparent, although the plate may incorporate magnetic material such that the magnetic coding is then within the plate itself.

65 Although of particular application to the identification marking of beer barrels, the means of the invention may be employed with other containers such as for example the containers supplied by a brewery for use in association with beer barrels. Such containers may be the CO₂ cylinders which are supplied 70 for the pressurization of beer kegs. The invention is also of application to larger containers such as transport containers and container bodies of vehicles such as railway trucks and wagons.

75 The invention will now be further described with reference to the accompanying drawings which illustrate, by way of example, a preferred embodiment of the invention as applied to the identification marking of a beer leg. In

80 the drawings:

Figure 1 is a top end view of the keg; and Figure 2 is a cross-section view on the line II-II in Fig. 1.

85 The keg 1 itself is of entirely conventional form, with a domed end wall 2 having a central pressure neck 3, screw-threaded to receive a closure bung or for connection to a delivery system, and inset with respect to an end ring. The identification means 5 of the invention are welded to the surface of the end wall 2 at a suitable position thereon.

90 The identification means comprise a pressed sheet metal frame member 6 which closely receives a rectangular and optically transparent plastics identification plate 7. A bar code adhesive strip 8 is applied to the back (inner) surface of the plate 7, for reading of the coding 8a by an optical reading head through the plate 7 which is of a shatterproof plastics material such as polycarbonate. This material not only cannot be shattered by blows from a hammer but it is also caustic resistant, scratch proof and acid proof.

95 As mentioned the frame member 6 is of pressed metal form, with a continuous rectangular side wall 9, a frame section 10 which overlaps a peripheral region of the plate 7 closely to contain same and a continuous edge flange 11 which fits closely to the 100 surface of the end wall 2. The flange 11 is

welded to the wall 2, either with a continuous circumferential weld or by a series of welds such as 12 as shown in Fig. 1. In either case the identification means are permanently secured to the keg 1.

The frame member 6 is of a metal compatible with that of the keg 1. Thus with an aluminium keg it will normally be of aluminium, whereas it will normally be of stainless steel when fitted to a stainless steel keg.

The frame member need not be continuous. It may be constituted by separate discrete retaining members engaging and overlapping opposed regions, say two pairs of opposed regions of the identification plate.

In one modification the metal frame member or retaining members is or are secured to the metal container by an adhesive.

The adhesive is preferably but not essentially an elastomer-based compound capable of withstanding temperatures to which the container may be subjected to in cleaning, sterilising and/or storing. Such a compound, moreover, preferably lends itself to coping with any vibration or other movements to which the container might normally be subjected to in handling, transporting or otherwise.

A second modification, suitable in certain instances, is to rivet the metal frame member or retaining members to the metal container. Such a modification is especially suitable for non-pressurised containers.

In the distilling industry it is customary to store the spirituous liquids for long periods of time, years in fact, in wooden casks and a third modification is concerned with fastening a suitable frame member, of metal, plastics, wood for example, to the wooden casks by nailing or stapling or adhesive as aforesaid.

In all the above modifications the frame closely encloses the identification plate, or the retaining members engage opposed regions of the latter.

It is also envisaged that the identification means may be any convenient form of identification data encapsulated within a plastics plate or body which is directly adhered or otherwise conveniently secured to the metal container, wooden cask or container formed of any other suitable material, for example an inert plastics material.

The frame or retaining members may be omitted the plastics plate 7 with the identification strip 7 as aforesaid or encapsulated within the plate be directly secured to the keg 1 adhesively or by nailing, stapling or riveting.

It is preferred, however, that there is provided either the aforesaid retaining members or, preferably, the peripheral frame member 6.

CLAIMS

65 1. Identification means on a container or

receptacle comprising a plastics identification plate with identification marking on the inner side face thereof or within the plate, and means for securing the plastics identification

70 plate to the container or receptacle without obscuring the identification marking which can thus be read.

2. Identification means as claimed in claim 1, in which the plastics identification 75 plate is adhesively secured to the container or receptacle.

3. Identification means as claimed in claim 1 in which the plastics identification plate is nailed, stapled or riveted to the

80 container or receptacle when the latter is formed of wood.

4. Identification means as claimed in claim 1 in which the plastics identification plate is secured to the container or receptacle 85 by retention means secured to the latter and overlapping at least part of the periphery of the plastics identification plate.

5. Identification means as claimed in claim 4, in which the retention means comprises retaining members overlapping opposed peripheral regions of the plastics identification plate.

6. Identification means as claimed in claim 4, in which the retention means is a 90 frame member peripherally surrounding the plastics identification plate and overlapping opposed peripheral regions of the latter.

7. Identification means as claimed in claim 6, in which the frame member wholly 100 overlaps the periphery of the plastics identification plate.

8. Identification means as claimed in any one of claims 4 to 7, in which the retention means, retaining members or frame member 105 are secured to the container or receptacle, depending on the constitution of the latter, adhesively, or by nailing, stapling or riveting, or by welding.

9. Identification means as claimed in claim 7 or 8, on a metal container or receptacle comprising a pressed metal frame member with a side flange or flanges which fit closely to the container surface and by which the frame member is welded to the container, and

110 115 a plastics identification plate with identification marking on the inner side face thereof or within the plate, the plate being retained within the frame member which completely encloses a peripheral region of the plate without obscuring the identification marking which can thus be read.

10. Identification means as claimed in any one of claims 1 to 9, in which the plastics identification plate is an optically transparent 125 plastics material, so that the identification marking is visible through the plate.

11. Identification means as claimed in any one of claims 1 to 10, in which the identification marking is or incorporates a bar coding 130 for reading by an optical scanning head or

probe for automatic reading of the identification information.

12. Identification means as claimed in any one of claims 1 to 10, in which the identification marking is magnetic in nature.

13. Identification means as claimed in claim 12 in which the plastics identification plate incorporates magnetic material whereby the magnetic coding is within the plate itself.

10 14. Identification means as claimed in any one of claims 1 to 12, in which the identification marking is encapsulated within the plastics identification plate.

15 15. Identification means on a container or receptacle, substantially as hereinbefore described with reference to the accompanying drawing.

Printed in the United Kingdom for
Her Majesty's Stationery Office. Dd 8818935, 1985, 4235.
Published at The Patent Office, 25 Southampton Buildings,
London, WC2A 1AY, from which copies may be obtained.